

PROTEUS INSTRUMENTS SCOOPS WORLD-FIRST FOR WATER INDUSTRY

Small in size but big on innovation, the Proteus sensor has proved a game changer for the global water industry... and it all began in Bromsgrove.

Academia's loss was industry's gain when Rob Stevens abandoned his PhD studies back in 1994. And he shows exceptional modesty by saying he "struck lucky" from then on.

"I always had an affinity with water and rivers, but after doing my undergrad degree, I realised that job prospects in a recession didn't look good, even with a PhD. So I went straight into industry," Rob explained.

Today, the RS Hydro group has a £5m turnover, a world-first under its belt, and several exciting new products in the pipeline.

The world-first is of course the Proteus – the first (and only) water quality instrument on the market to accurately measure organic and microbial (bacterial) pollution in real time. And just as the Greek God Proteus protected waters in ancient times, his modern namesake is keeping track of water safety standards around the world today.

Rob continued: "Usually water samples have to be taken for lab tests to see if they're suitable for drinking, bathing and other environmental purposes, and this can take days. The Proteus measures data on the spot.

"There isn't a country in the world where this technology doesn't apply, and the feedback has been truly amazing. Plus, overall costs, energy usage and general maintenance are much lower than analyser-based systems, and Proteus can be installed in almost any aquatic environment.

The story began in 2013, with a two-year knowledge transfer partnership between RS Hydro and the University of Birmingham. Proteus Instruments Ltd was formed in 2018 and production started the same year.

Rob pointed out: "We're a small company with limited resources and time for marketing, so it took a while to build awareness. We knew there would be scepticism in the industry at first, and



Rob Stevens, managing director of the RS Hydro Group, pictured with his National Innovation Award from the Institute of Water.

trials with water companies can be lengthy and repetitive. So we undertook several scientific papers to speed up the acceptance process which proves that Proteus can successfully classify 90% of samples into the correct bathing category in real-time. The papers include more evidence and science than we could have possibly achieved through trials."

Now Proteus has a global network of distributors from New Zealand to India, with worldwide patents filed. Extensive trials have also been carried out with water companies around the world; in particular the company has worked closely with Severn Trent Water who now use the technology – a partnership that Rob is particularly proud of.

But there's no time to rest on the proverbial laurels. As recent winners of the Institute of Water 2021 National Innovation award, RS Hydro is focused on expansion, bringing more manufacturing in-house,

and developing new technology with local agency funding.

Rob concluded: "We're currently doing a lot of research into sensors which can unlock ever finer levels of detection and accuracy ... this in turn will open up totally different markets.

"If you think about drinking water from your own tap, where you can measure a single Coliform (bacterial) count. Imagine taking that technology anywhere in the world to protect water wells in developed and developing economies. It could be truly ground-breaking."

The RS Hydro Group provides solutions for a host of industries, including water and waste water, environmental, and processes. They are award-winning specialists in flow meters, water quality monitoring instruments, water sampling equipment and much more. Full details at rshydro.co.uk